Foodborne Outbreak of Emerging *Salmonella* Serotype I 4,[5],12:i:- Infections—California, 2004

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Background: While surveillance data show an overall decline in salmonellosis in the US, *Salmonella* serotype I 4,[5],12:i:- infections nearly doubled from 2002-2003. This monophasic serotype, likely a variant of *S.* Typhimurium, first emerged in Europe and is associated with multi-drug resistance. Its epidemiology in the US, however, is poorly understood. In November, 2004, an outbreak of *S.* I 4,[5],12:i:- infections occurred among guests of a party in California. We conducted an investigation to determine the extent of the outbreak and risk factors for illness.

Methods: We initiated case surveillance in the community, conducted a retrospective cohort study among guests and inspected the restaurant that catered the party. We defined a case as onset of diarrhea ($\geq$3 stools/24 hr) in a guest within seven days after the party. Clinical isolates were serotyped and screened for chloramphenicol susceptibility as an indicator for multi-drug resistance.

Results: Contemporaneous illness complaints were not reported among other community members. Twenty-five of 34 party guests enrolled in the study reported illness meeting the case definition, for an attack rate (AR) of 74%. Stool cultures from two ill persons yielded chloramphenicol-sensitive *S.* I 4,[5],12:i:-. Guests who consumed homemade chicken enchiladas were 2.19 times more likely to become ill than those who did not (95% Confidence Interval [CI] 1.01 - 4.74, P=0.009, food-specific AR 88%). Those who consumed restaurant-supplied tortilla chips were 2.98 times more likely to become ill than those who did not (95% CI 0.91- 9.72, P=0.007, food-specific AR 85%). Chips are fried onsite daily, serving regular patrons and catered events. However, two ill persons consumed only chicken enchiladas and a guest reported that some were not thoroughly heated.

Conclusions: Based on our findings and on national surveillance data showing isolation of *S.* I 4,[5],12:i:- from chickens, we believe that chicken enchiladas are the more likely vehicle of transmission for this outbreak. Further investigation into risk factors for this emerging *Salmonella* serotype will facilitate development of targeted intervention and prevention strategies.